LAT 39.86115 LON -121.22505 74.01

Nevada City D.P.

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R5

REPLY TO: 5230 Forest Insect Evaluation

February 19,1974

SUBJECT: Insects - Buck's Ranch Plantation

TO: Forest Supervisor, Tahoe N.F.

On January 29, the continuing infestation of pine reproduction weevil at Buck's Ranch was inspected by John Pierce, accompanied by John Gilman and John McAdams. (See attached report by John McAdams.) Some Bureau of Land Management plantations were also visited and David Raney and Tom Costello from their Folsom District Office were along. Included is a summary of data derived from samples collected during the survey (Table 1).

No objective survey method for the weevil has been developed and the collected data serves only to guide our judgment in evaluating this problem. From past experience we feel that high weevil populations correspond to counts of four and five weevils per lineal inch of stem while low populations are around two or fewer weevils per lineal inch (Table 1).

At the present time there are no insecticides recommended or registered for use in reproduction weevil control. Also, direct control has no lasting benefits. One means available to protect plantations from this weevil is by improving growing conditions for the trees, which increases the natural resistance of trees to attack. Cultural treatment, to reduce competition, is usually recommended. In cases where weevil numbers are high, we sometimes try to destroy as many weevils as possible, by burning infested trees, in order to get some temporary protection until the trees can respond to the cultural treatment.

TAHOE N. F. The planted trees at Buck's Ranch are suffering severe competition from brush and the dying trees contain a fairly high weevil count. We believe some cultural treatment is needed, as soon as possible, to reduce the brush competition. If this can be done prior to weevil emergence (mid to late May) it would have the greatest benefit in protecting the surviving trees. It might also be worthwhile to burn the infested trees prior to beetle emergence if the cultural work can also be accomplished.

Gilman

FRANK H. JOHNSON
Acting Chief, Division of Timber Management

Enclosures

TAHOE NATIONAL FOREST
NEVADA CITY RANGER DISTRICT
NEVADA CITY, CALIFORNIA
FEB 27 1974 R. A.
CLERK
FILE
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FOREST SERVICE

N.C.R.D.

REPLY TO: 5230 Evaluation December 7, 1973

SUBJECT: Forest Insect & Disease Control
(Buck's Ranch Plantation P 117-66S)

TO: Files

On October 19, 1972 Reproduction Weevil was found to be working in the west portion of the Buck's Ranch Plantation. The area involved is the portion of the plantation that was added in 1967 to the original Buck's Ranch Plantation and contains 206 acres.

On October 20, 1972 a survival count was made—see attached memorandum dated October 26, 1972.

On October 15, 1973 another survival count was made in the same manner as the previous one with the following results:

22% dead
27% unthrifty
33% thrifty
18% missing

The results of the two survival counts indicate that during 1972 the number of living trees decreased 22% and during 1973 decreased 40% more. At present the plantation is sufficiently stocked except for an area along the top of the plantation which will need to be replanted. The weevil was quite selective in the remaining area so that the trees killed are well dispursed throughout. The yearly rate of kill indicates that if the weevil is allowed to work for another season the plantation will be understocked.

At the present time the only way to prevent further loss is to release the remaining trees from competition with the surrounding brush. This measure should increase the vigor of the remaining trees whereby they will be able to ward off weevil attacks.

The plantation was planned to be sprayed with herbicide during the fall of 1973 but a ban on the use of 2, 4 5-T prohibited us from doing this type of release. Plans are being made for the spring of 1974 to release the remaining trees either by hand clearing the brush around each tree or by some type of tractor drawn brushing machine.

The entire area was windrowed during the summer of 1966 and planted with ponderosa pine in the spring of 1967. The area was sprayed with 2, 4, 5-T during the fall of 1969. No release measures have been undertaken since.

JOHN MCADAMS

5230
2/19/74

Table 1.--Reproduction Weevil Survey - January 1974

Area	D.R. No.	County	Ownership	Weevils Per Lineal Inch
Round Mt.	137/73	Nevada	BLM	5.48 ± 8.48
Indepen-dence	140/73	Calaveras	BLM	4.66 ± 3.52
Buck's Ranch	180/72	Nevada	FS	4.07 ± 1.77
Lilly Gap Road	139/73	Calaveras	BLM	2.69 ± 2.33
Railroad Flat	141/73	Calaveras	BLM	2.05 ± 0.63
Kings Hill	138/74	Placer	BLM	0.54 ± 0.66